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Exhibit B
Triad National Security, LLC and
United States Department of Energy, National Nuclear Security Administration
Sampling and Reporting Plan for Per- and Polyfluoroalkyl Substances in Industrial Discharges
December 6, 2021

INTRODUCTION:

Certain per- and polyfluoroalkyl substances ("PFAS") compounds are toxic and pose hazards to human health and the environment. PFAS have been detected in nearly all environmental media; however, there is very limited data on industrial wastewater discharges of PFAS into the environment, in part because relatively few facilities have National Pollutant Discharge Elimination System ("NPDES") permit limits or monitoring requirements for PFAS even though perfluorinated compounds are used in industrial activities such as metal plating and firefighting activities, are a common ingredient in many applications, and have been in use since the 1940s.

Monitoring for PFAS helps provide information about whether PFAS are present in effluent discharges and where they are present to better control and mitigate these toxic pollutants in the environment. Where PFAS are found in the environment, they can also be found in aquatic life, wildlife, and humans. Triad National Security, LLC ("Triad")/United States' Department of Energy, National Nuclear Security Administration ("DOE NNSA") will conduct PFAS sampling and reporting to help protect New Mexico's surface waters, public health, and the environment.

This document constitutes the Sampling and Reporting Plan ("SARP") for PFAS in effluent discharges from industrial wastewater treatment facilities, as described in the Settlement Agreement regarding Triad/DOE NNSA's Petition for Review of the State Certification of Los Alamos National Laboratory Individual Storm Water NPDES Permit No. NM0028355, filed December 30, 2020. The SARP is not a condition of 401 certification. The SARP is an agreement by and between Triad/DOE NNSA and the New Mexico Environment Department-Surface Water Quality Bureau ("NMED-SWQB") to sample effluent discharges from industrial wastewater facilities. Triad/DOE NNSA developed the SARP, with collaboration and concurrence from NMED-SWQB. Triad/DOE NNSA are responsible for implementing this SARP pursuant to the Settlement Agreement (SWQB 20-79).

OBJECTIVE:

Triad/DOE NNSA will monitor PFAS in effluent discharges from outfalls within Los Alamos National Laboratory ("LANL") where data indicate that there is a *reasonable potential* ("RP") to discharge PFAS into the receiving stream in quantities that may be harmful to human health and aquatic life. This information will be used to inform future management and permitting decisions related to LANL activities and water quality protections.

MONITORING:

Triad/DOE NNSA calculated RP for PFAS based upon the EPA calculation methodology provided in the Permit Application, comparing the analytical data to the screening level because there are no numeric criteria for PFAS, and using the analytical data provided in Attachment A. This calculation included an RP determination for PFOA + PFOS and for Total PFAS, which includes all detected PFAS constituents (Table 1).

Table 1. Summary of Reasonable Potential (RP) Analysis Results

Outfall	PFOA + PFOS (ng/L)			Total PFAS (ng/L) – 39 Parameters		
	Effluent Concentration	In Stream Concentration	RP YES/NO	Effluent Concentration	In Stream Concentration	RP YES/NO
001	28.8	61.3	NO	100.5	214.2	YES
13S	36.4	77.5	YES	127.1	270.7	YES
03A027	0	0	NO	6.25	13.3	NO
04A022	2.8	6.0	NO	4.94	10.5	NO
051 [a]	0	0	NO	0	0	NO
05A055	229	487.8	YES	1385.6	2949.2	YES
03A048	0	0	NO	6.96	14.8	NO
03A113	0	0	NO	13.53	28.8	NO
03A160	0	0	NO	13.84	29.5	NO
03A181	0	0	NO	0	0	NO
03A199	0	0	NO	1.76	3.7	NO

a. Outfall 051 analytical data includes only the 3 toxics listed in the New Mexico Water Quality Standards. The three toxics are Perfluorooctanesulfonic acid [PFOS], Perfluorooctanioic acid [PFOA], and Perfluorohexanesulfonic acid [PFHxS].

PFAS Screening Level for New Mexico*	
PFOA + PFOS	0.070 ug/L

*Concentrations of PFOA and PFOS are summed before being compared to the screening level.

Where RP for PFAS, including PFOA and PFOS, may exist, TRIAD/DOE NNSA will monitor PFAS constituents. Based on data provided by Triad/DOE NNSA (Attachment 1), discharges from Outfalls 001, 13S, and 05A055 have an RP to discharge PFAS into the receiving stream in quantities that may be harmful to human health and aquatic life (Table 1). Therefore, Triad/DOE NNSA will monitor and report PFAS in effluent from Outfalls 001, 13S, and 05A055 once per year for five years, for a total of five samples from each outfall, or when the facility discharges if discharge occurs infrequently.

- Sampling Protocols: Effluent sampling will be conducted in accordance with Triad/DOE NNSA standard operating procedures ("SOPs"). However, because PFAS are notoriously ubiquitous in everyday items, sampling protocols must take certain precautions to avoid contamination. Therefore, sampling protocols will adhere to the California State Water Quality Control Board-Division of Water Quality's PFAS Sampling Guidelines for Non-Drinking Water (September 2020).

- Analytical Method: Samples will be analyzed pursuant to modified EPA Method 537.1 (EPA 2018) by an accredited lab for all PFAS analytes tested by Method 537.1. If the EPA Method 1633 (EPA 2021[1]), "Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS" is readily available for PFAS analysis by accredited labs within 21 days after sample collection, samples will be analyzed using EPA Method 1633 for all PFAS analytes tested by Method 1633.

1 https://www.epa.gov/cwa-methods

Samples will be analyzed by off-site environmental laboratories that provide quality assurance plans ("QAPs"). Laboratory QAPs include SOPs for creating laboratory duplicates for analysis. Off-site laboratories are accredited by the National Environmental Laboratory Accreditation Conference and have successfully passed a DOE Consolidated Audit Program.

REPORTING:

Triad/DOE NNSA will validate the PFAS data in accordance with their administrative procedures within one week of receiving the final analytical report for the sampling events from the analytical lab. Triad/ DOE NNSA will upload PFAS data to Intellus within one week of validation, so data are available to NMED-SWQB and the public. Triad/DOE NNSA will submit an annual PFAS data report to the NMED-SWQB Point Source Program Manager by January 31st each year. In the annual report, Triad/DOE NNSA will detail the attempts made to collect a sample, including reasons why the sample could not be collected, and total samples collected to date.

POST SAMPLING ACTIONS:

Post-sampling steps will depend upon the sampling results. If sampling results exceed the screening level, then NMED-SWQB and Triad/DOE NNSA will discuss further action, including continued monitoring and reporting, and possible corrective actions to minimize, reduce, and eliminate PFAS from the industrial activity through product substitution and/or additional best management practices and operational controls. Results of past monitoring and any corrective actions taken should be documented by Triad/DOE NNSA in the annual reports.